What is claimed is:

1. An apparatus for examining a particle in a flow stream of a flow cytometer, comprising:

a light emitting device comprising at least one incoherent light emitting semiconductor device, adapted to emit light toward said flow stream; and

a detector, adapted to detect light emanating from said particle in response to said emitted light striking said particle.

2. An apparatus as claimed in claim 1, wherein:

said incoherent light emitting semiconductor device comprises a light emitting diode.

3. An apparatus as claimed in claim 1, wherein:

said emanating light comprises fluorescent light; and

said detector is adapted to detect said fluorescent light.

4. An apparatus as claimed in claim 1, wherein:

said light emitting device comprises two incoherent light emitting semiconductor devices, each adapted to emit a respective light toward said flow stream; and

said detector is adapted to detect each light emanating from said particle in response to said respective emitted lights.

5. An apparatus as claimed in claim 1, further comprising:

a controller, adapted to control said light emitting device to emit said emitted light for a predetermined period during which said emitted light radiates on said particle.

6. An apparatus as claimed in claim 5, wherein:

said controller is adapted to control said light emitting device to emit said emitted light in pulses.

7. An apparatus as claimed in claim 1, further comprising:

a second light emitting device, adapted to emit a second substantially coherent light toward said flow stream.

8. An apparatus as claimed in claim 7, wherein:

said second light emitting device comprises a laser which is adapted to emit said second light striking said particle.

9. An apparatus as claimed in claim 7, further comprising:

a second detector, adapted to detect second light emanating from said particle in response to said second emitted light striking said particle.

10. An apparatus as claimed in claim 9, further comprising:

a controller, adapted to control said light emitting device to emit said emitted light for a predetermined period based on detection of said second emanating light by said second detector.

11. An apparatus as claimed in claim 1, further comprising:

a light obstructing device, having a substantially opaque portion which is adapted to prevent a portion of said emanating light from being detected by said detector, and at least one substantially transparent portion which is adapted to permit another portion of said emanating light to pass to said detector for detection by said detector.

12. An apparatus as claimed in claim 11, wherein:

said light obstructing device includes two of said substantially transparent portions.

13. An apparatus as claimed in claim 12, wherein:

one of said transparent portions of said light obstructing device is larger than the other of said transparent portions.

14. An apparatus as claimed in claim 11, wherein:

said light obstruction device is positioned substantially at an image plane onto which said emanating light projects an image of said particle.

15. A method for examining a particle in a flow stream of a flow cytometer, comprising:

activating a light emitting device to cause at least one incoherent light emitting semiconductor device to emit light toward said flow stream; and

detecting light emanating from said particle in response to said emitted light striking said particle.

16. A method as claimed in claim 15, wherein:

said incoherent light emitting semiconductor device include a light emitting diode; and

said activating step comprises activating said light emitting diode.

17. A method as claimed in claim 15, wherein:

said emanating light includes fluorescent light; and

said detecting step comprises detecting said fluorescent light.

18. A method as claimed in claim 15, wherein:

said light emitting device comprises two incoherent light emitting semiconductor devices, each adapted to emit a respective light toward said flow stream during said activating step; and

said detecting step detects each light emanating from said particle in response to said respective emitted lights.

19. A method as claimed in claim 15, further comprising:

controlling said light emitting device to emit said emitted light for a predetermined period during which said emitted light radiates on said particle.

20. A method as claimed in claim 15, further comprising:

controlling said light emitting device to emit said emitted light in pulses.

21. A method as claimed in claim 1, further comprising:

activating a second light emitting device to emit a second substantially coherent light toward said flow stream.

22. A method as claimed in claim 21, wherein:

said second light emitting device comprises a laser which is adapted to emit said second light striking said particle; and

said second light activating step activates said second light emitting device.

23. A method as claimed in claim 22, further comprising the step of:

detecting second light emanating from said particle in response to said second emitted light striking said particle.

24. A method as claimed in claim 23, further comprising the step of:

controlling said light emitting device to emit said emitted light for a predetermined period based on detection of said second emanating light during said second light detecting step.

25. A method as claimed in claim 15, further comprising the step of:

preventing a portion of said emanating light from being detected during said detecting step; and

permitting another portion of said emanating light to be detected during said detecting step.